CLAIMS

1. A method of calibrating gain of multiple receivers, the method comprising:

setting receiver filters to a narrow bandwidth;

sampling the receive band with the receiver filters across substantially all of the receive band;

measuring received power at each sample; and

calibrating the receiver gains as a function of the minimum received power across the receive band.

2. The method of claim 1 wherein the narrow bandwidth is approximately 100 KHz.

3. The method of claim 1 wherein the number of samples per receiver filter is between approximately 5 and 10 across a receive band of approximately 25 MHz.

4. The method of claim 1 and further comprising waiting at each sample for the received power to settle.

5. The method of claim 4 wherein the wait is approximately three seconds.

6. The method of claim 1 wherein the receivers are CDMA channel receivers.

7. The method of claim 6 wherein the CDMA channel is approximately 1.23 MHz wide, and the narrow bandwidth is approximately 100 KHz.

8. The method of claim 6 wherein there are three CDMA receivers.

9. A radio module for a base station, the module comprising:

a receiver;

an adjustable receiver filter;

a power detector; and

a micro-controller that adjusts the receiver filter to sample a narrow bandwidth across a receive band and adjusts a gain of the receiver as a function of power detected.

10. The radio module of claim 9, wherein the gain is adjusted based on minimum power detected over the samples.

11. The radio module of claim 10, wherein the narrow bandwidth is approximately 100 KHz.

12. The radio module of claim 10, wherein the receiver is a receiver for a CDMA channel.

13. The radio module of claim 9, and further comprising two additional radio modules, each corresponding to a different CDMA sector.

14. The radio module of claim 9 and further comprising a low noise amplifier and an adjustable attenuator.

15. The radio module of claim 14 and further comprising means for selectively bypassing or enabling the low noise amplifier.

16. The radio module of claim 9 wherein the receiver comprises a duplexer coupled to a pair of antennas for implementing receive diversity.

17. A method of detecting interference, the method comprising:

setting a bandwidth for multiple receiver filters to a portion of a channel bandwidth that is a function of the number of such receiver filters;

merging the receiver filters to significantly cover the bandwidth of a channel; and

moving the merged receiver filters to selected channels to identify whether interference is narrowband or wideband.

18. The method of claim 17 wherein three received filters are used, and each covers approximately $1/3^{rd}$ of the bandwidth of the channel.

19. The method of claim 17 wherein the channel is a CDMA channel having a bandwidth of approximately 1.23 MHz.

20. The method of claim 17 and further comprising measuring received power through each filter at the selected channels.

21. The method of claim 20 wherein the interference is identified as narrowband if the difference of received power across all filters is substantially large at a selected channel.

22. The method of claim 20 wherein the interference is identified as wideband if the difference of received power across all filters is small at a selected channel.

23. A micro-controller comprising:

means for setting a bandwidth for multiple receiver filters to a portion of a channel bandwidth that is a function of the number of such receiver filters;

means for merging the receiver filters to significantly cover the bandwidth of a channel; and

means for moving the merged receiver filters to selected channels to identify whether interference is narrowband or wideband.

24. A device comprising:

means for detecting interference; and

means for adjusting receiver gain based on narrowband sampling of the noise floor.